

METHOD AND APPARATUS FOR THIN FILM FORMATION BY ATOMIC LAYER GROWTH

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Abstract

PROBLEM TO BE SOLVED: To provide the subject method comprising such a process as to subject a reaction chamber with a substrate set inside to the feed of both adsorption gas and reactant gas and their purges alternately to effect atomic layer growth by reaction between the adsorption gas and reactant gas to form a thin film on one side of the substrate; wherein impurities left in the thin film are diminished during film formation.

SOLUTION: This method for forming a thin film on one side of a substrate comprises successively repeating adsorption gas feed step, 1st purge step, reactant gas feed step and 2nd purge step to effect atomic layer growth on one side of the substrate by reaction between the adsorption gas and reactant gas; wherein during at least one of the reactant gas feed step and the 2nd purge step, one side of the substrate 8 in a reaction chamber 2 is irradiated with ultraviolet rays from UV lamps 10 through irradiation windows 11.